

Faculty of Education

Lesson Plan Template

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| **Subject / Course:** Math | **TC Name:** Amy Kelland | |
| **Grade Level:** 8 | **Date:** Oct 18th, 2010 | |
| **Topic:** Place holders and getting ready for dividing decimals | **Time of Class:** 60 mins | |
| **AT Name:** Mr. S. | **Room # / Location:** 208 | |
| **1. Curriculum Expectation(s) and Goal(s) for the Lesson** | |  |
| 1. **Expectations**:  |  | | --- | | - multiply and divide decimal numbers by various powers of ten  - represent, compare, and order rational numbers | | | |
| 1. **Goal(s) for the lesson:**  |  | | --- | | - Students will be able to determine when adding the digit zero affects a number and when it does not  - Students will understand why decimal points are used in real numbers  - Students will be able to divide two real numbers to get an answer with the appropriate number of decimal places | | | |
| **2. Preassessment and Accommodations/Modifications** | | |
| |  |  | | --- | --- | | **Preassessment:** | **Accommodation/Modification:** | | **Academic Needs:**   * One student in the class is gifted but his parents decided not to put him in a specialized class so when he gets bored, he gets distracted   **Behavioural/Social/Emotional Needs:**   * A couple of students seems quite withdrawn and do not participate much   **Physical Needs: N/A**  **Diversity Needs: N/A** | **Academic needs:**   * Students who finish early can work on the division questions on the handout. If they finish those, they may read their book until the end of class. * It may be necessary to be aware of the student who is gifted to make sure he stays on task and is not speaking out of turn   **Behavioural/Social/Emotional Needs:**   * By giving wait time after each question and asking some questions that are repeated, those students may be more willing to participate * The use of clickers will also encourage the students to be honest about what they understand on the topic   **Physical Needs: N/A**  **Diversity Needs: N/A** | | | |

**3. Learning Environment**

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| - The grade 8 students are at tables in groups of four, three or two at the front of the class  - Students will work at their desks and will fill in the handout as the lesson is being taught. This will ensure that students have a filled out template to work from at home.  Mr. Skelly's class.png |

**4. The Overview (Agenda) for your lesson:**

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| 1) Clicker questions “What is my understanding?”  2) Revealing when zeroes change my number  3) Decimal calculations  4) Try some division out! |

**5. Resources and Materials for your class**

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| - Handouts (16 copies)  - laptop  - projector and screen |

**6. Content, Teaching Strategies, for Lesson**

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| ***Time*** | ***Teaching or***  ***Assessment Strategy*** | ***Detailed Description*** |
| *10 min* | *Introduction* | *1) Students will answer the following multiple choice questions with clickers:*  - If I have $5.00 in quarters, how many quarters do I have? 20  - How many decimal places will the answer have of 0.726\*25.3? 4  - Which number is larger: 0.58 or 0.619? 0.619  - The fraction 6/12 can also be written as: 0.5  *2) Display the graph of understanding after each question so students can see if they are in the same boat as other students in the class. Explanations to the answers will be presented throughout the lesson.* |
| *40 min* | *Instruction/ Application* | *3) slide 6 – Have students raise their hands and tell me which number is larger between 1.0 and 0.9*  *4) Reveal the table and have students fill in the table for themselves and explain how the placeholders are different and that the further we go to the left, the placeholder values are larger and the further we go to the right, they are smaller*  *6) slide 7 – Now we will look at same place holders but different numbers. Show how we can compare the values within each place and move to the right with our comparison. Look at the chart right away to aid students. Then have students answer the questions and copy onto their handouts.*  *7) slide 8 – Let’s see if our comparison changes if we multiply both numbers by 10.*  *- reveal the next table to see that the comparison would stay the same.*  *8) slide 9 – So now that we’ve seen a placeholder in the last slide, what can be said for these questions.*  *- Have students fill in the table for themselves to see if this changes the value of the numbers. Then reveal the table and explain the comparison again and how you know the end zeroes after a decimal don’t matter*  *9) slide 10 – Have students answer questions and write the answers into the slides. Explain how the decimal seems to move over to the right when we multiply by multiples of 10.*  *10) slide 11-14 – Explain how to prepare a divisor and dividend for division of decimal numbers. Explain that the divisor must be a whole number and that both the divisor and the dividend must be multiplied by the same number.*  *11) slide 15 – Have students fill in the table as we take it up as a class. Be sure to point out the pattern of moving the decimal in each question.* |
| *10 min* | *Consolidation* | *11) The next four slides are clicker questions pertaining to moving decimals and zeroes as place holders.*  *- How many times does the decimal need to move to start this problem? (A: 3 times)*  *- Which number written in blue is larger than the number written in black? (392.9273)(A: 392.9273)*  *- How many times does the decimal need to move to start this problem?*  *(A: zero)*  *- Which problem is ready for division? (A: )* |

**7. Reflections: To be completed after you have taught the lesson.** (In this section, you will assess the effectiveness/ineffectiveness of your lesson and of your teaching.

**a) Effectiveness of your lesson***.*

*Include 2 or 3 lesson elements that were effective/ineffective. What went well, what could have gone better? How was the pacing of your lesson? Were your teaching strategies effective? Were all students engaged? Did the students accomplish your goal? Did your assessment strategies work?*

*What do you need to learn more about? What do you need to work on when planning your next lesson? Should you discuss something with your AT or your FA?*

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| **What was effective/ineffective about your lesson** | **How do you know?** | **What steps will you take to improve?** |
| *Clickers were effective because students wanted to participate* | *Lots of enthusiasm heard and demonstrated via attentiveness* | *Use clickers again to engage students as a reward* |
| *Should have had a plan for whether the worksheets were homework or not* | *Students asked me and I wasn’t sure what to tell them* | *I will decide ahead of time how much of my lesson needs to be covered for students to complete homework or I will share my thoughts about it out loud and make a decision in same manner.* |
| *SMART notebook went well, students were receptive to the format and shapes disappearing* | *Comments students made about how cool it was and fun to watch* | *Be sure to use the technology again but be careful not to be too flashy that the lesson is taken over* |
| *Technical components associated with projection colour were problematic.* | *The colour of the projection was distracting and took away from the lesson.* | *Test all technical components before actual lesson.* |

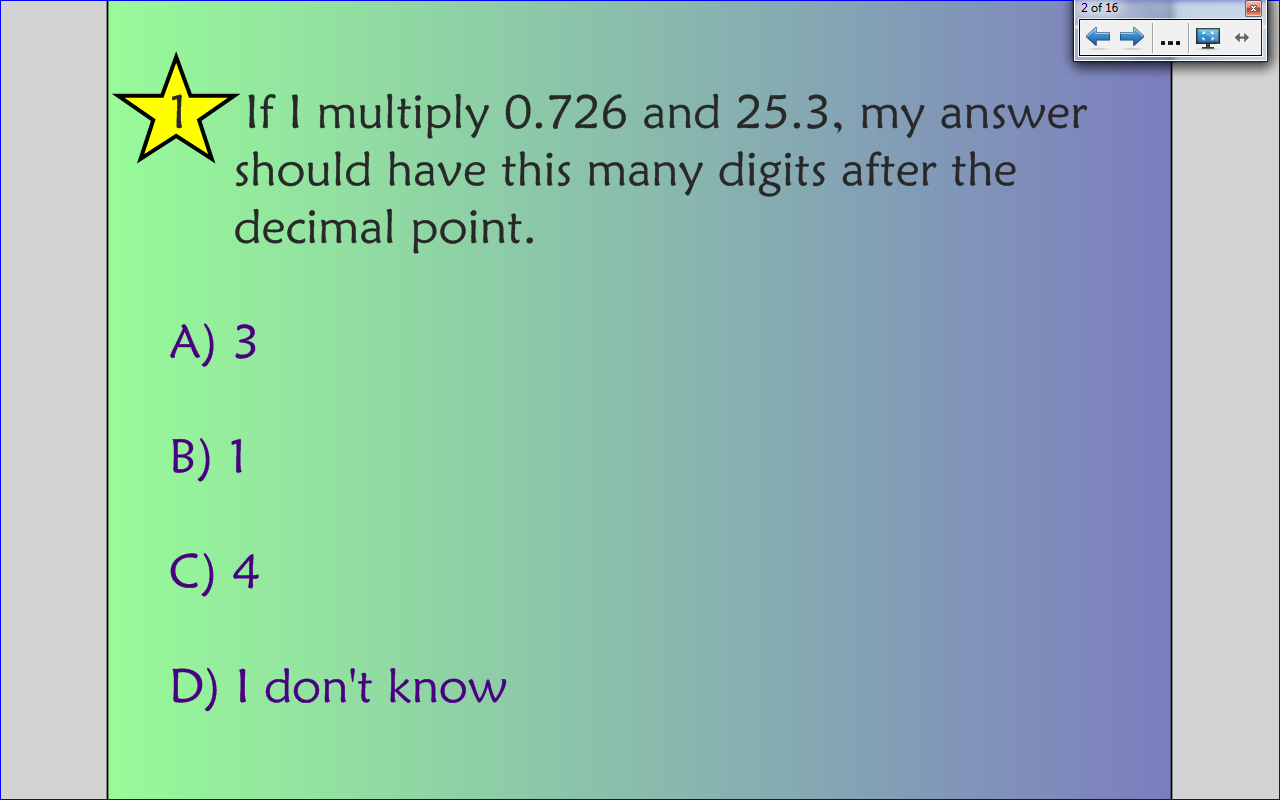
**b) Effectiveness as a Teacher:**

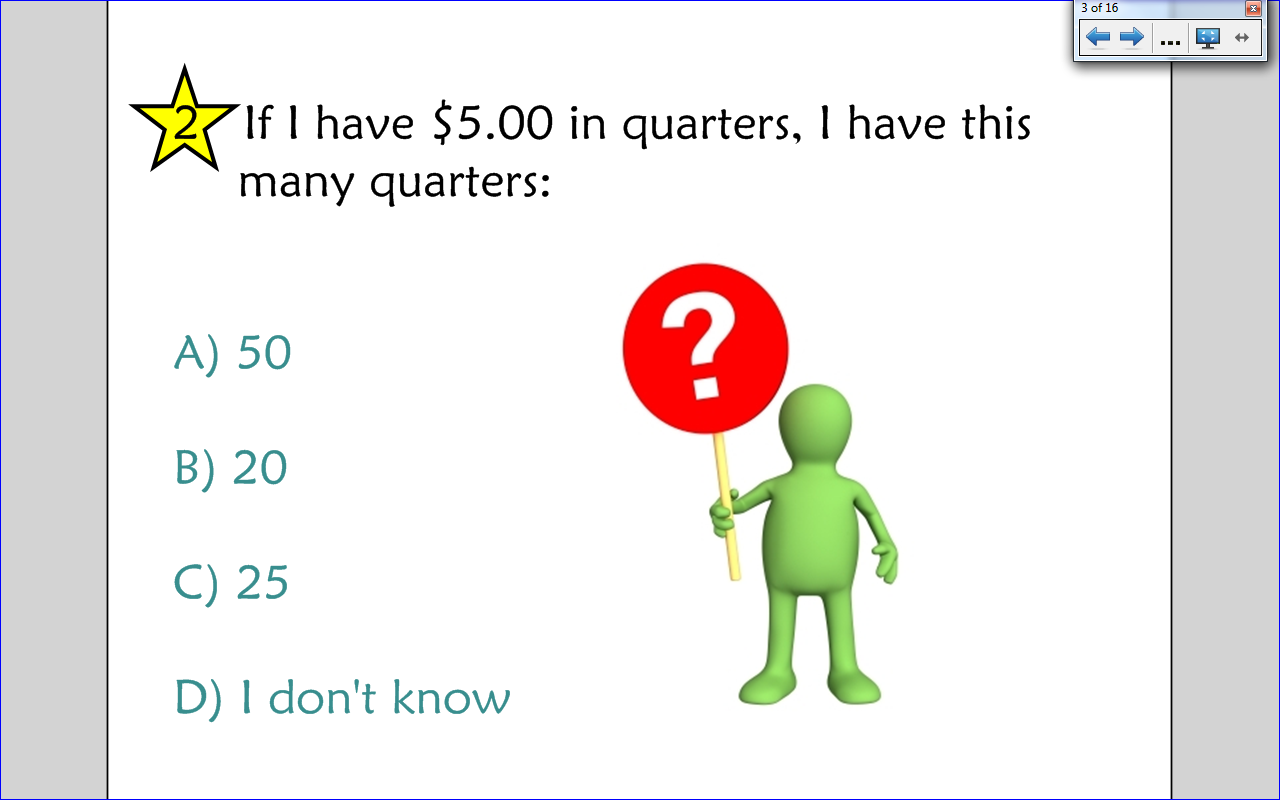
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| --- | --- | --- |
| **What was effective/ineffective about you as a teacher?** | **How do you know?** | **What steps will you take to improve?** |
| *I forgot the DAR to help students to know the purpose of the lesson* | *I remember not doing it* | *Add these everyday tasks to my lesson plan notes so they are not forgotten* |
| *Asking students for thumbs up, thumbs down to see if they were following, I probably shouldn’t have continued until I had a response from everyone so I didn’t call anyone out* | *I asked a few students directly who were receptive but have only been giving thumbs up because the rest of the class was* | *This method doesn’t seem very effective unless you have a bigger class so may not be effective with this small group.* |
| *Allowing students to speak-out rather than raise hand is problematic when dealing with larger groups of students* | *Students were speaking over one another and while I was speaking* | *Creating individual lesson components for students who cannot participate cooperatively with the group* |

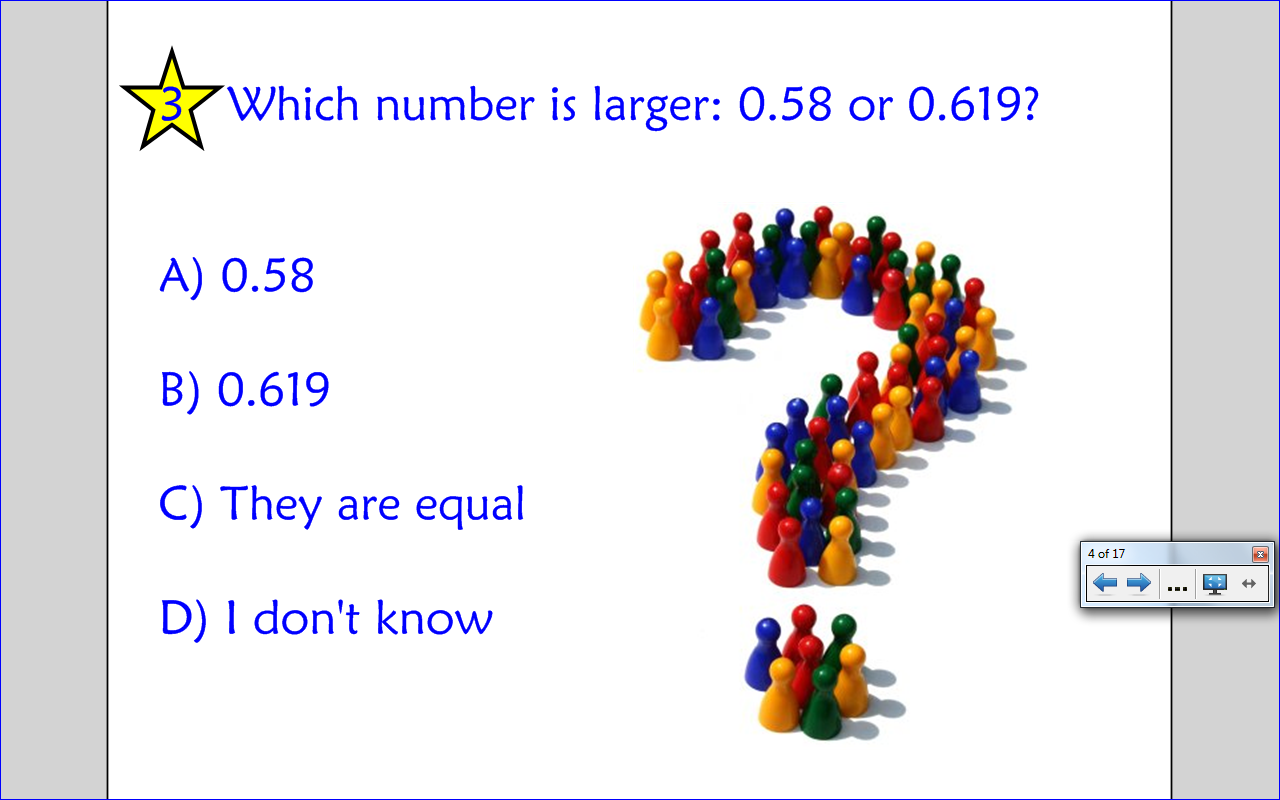
Slides

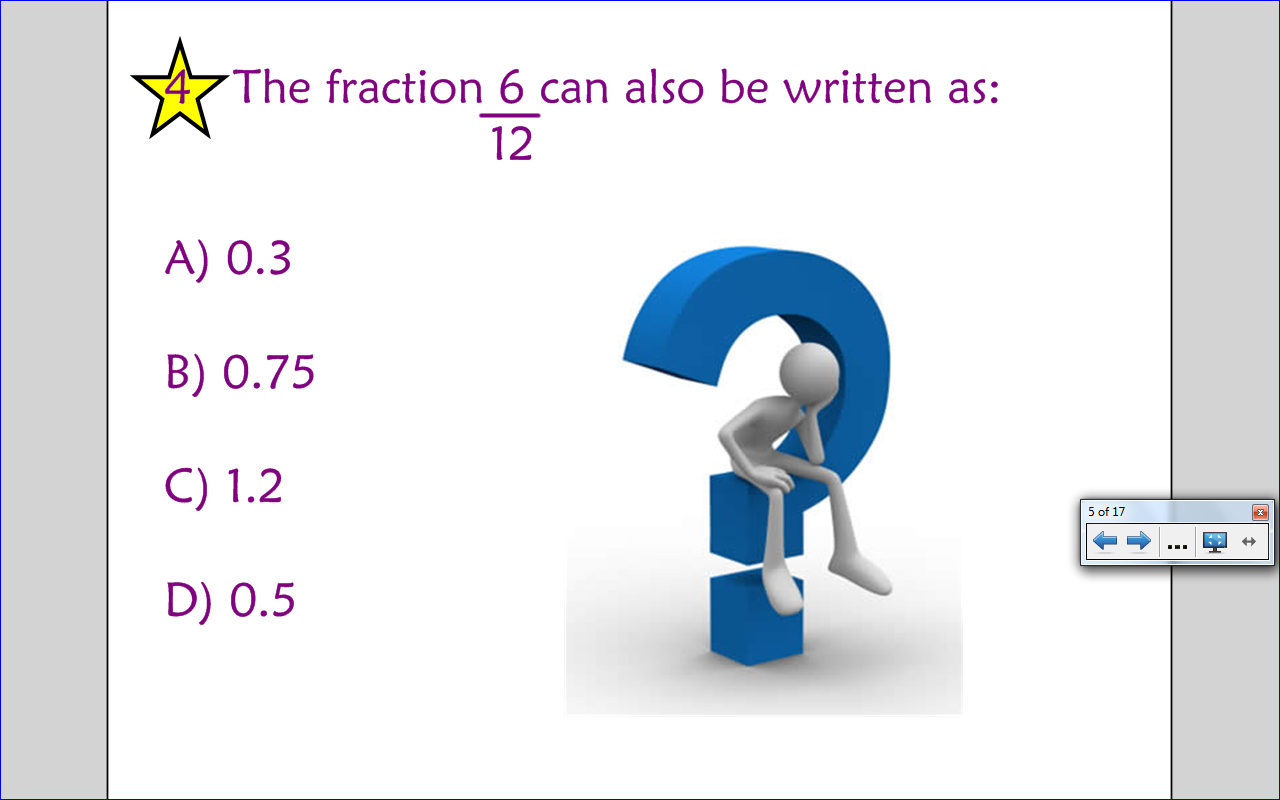


For the multiple choice answers, I will bring in the clickers

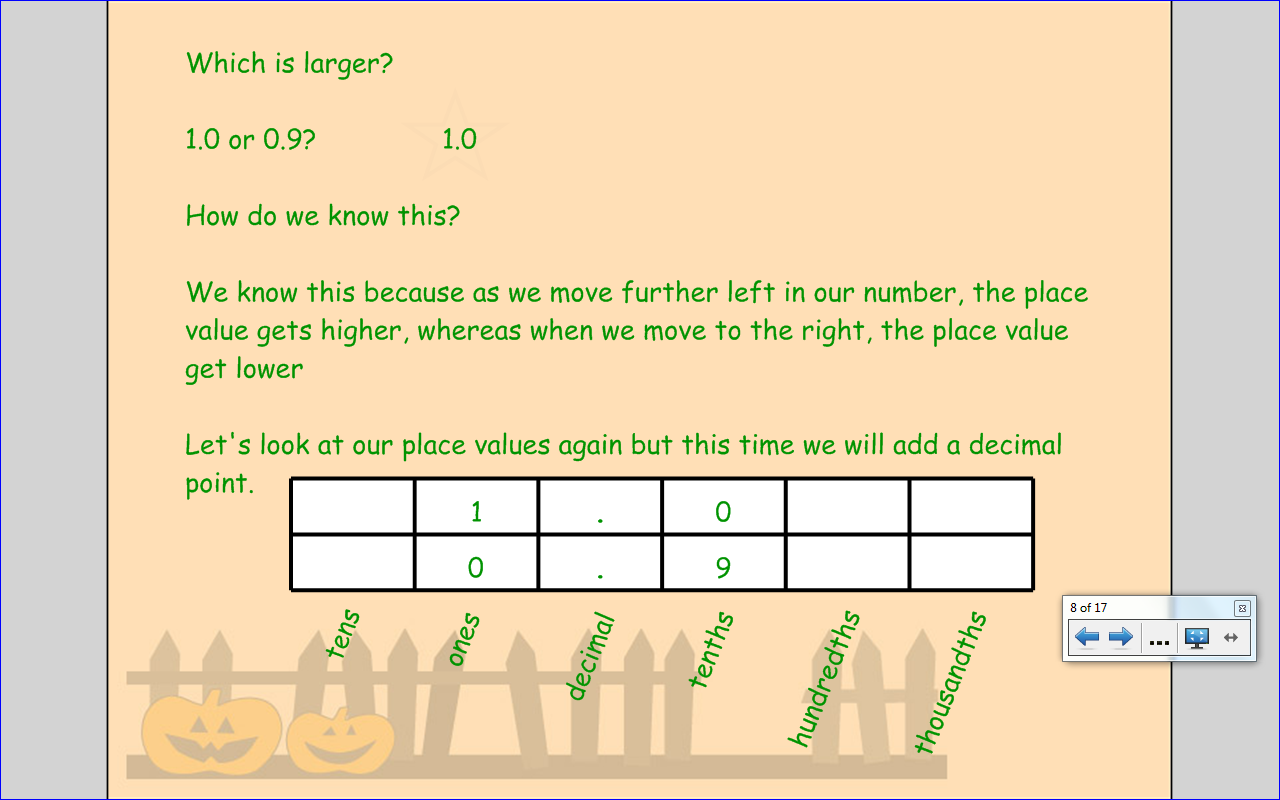


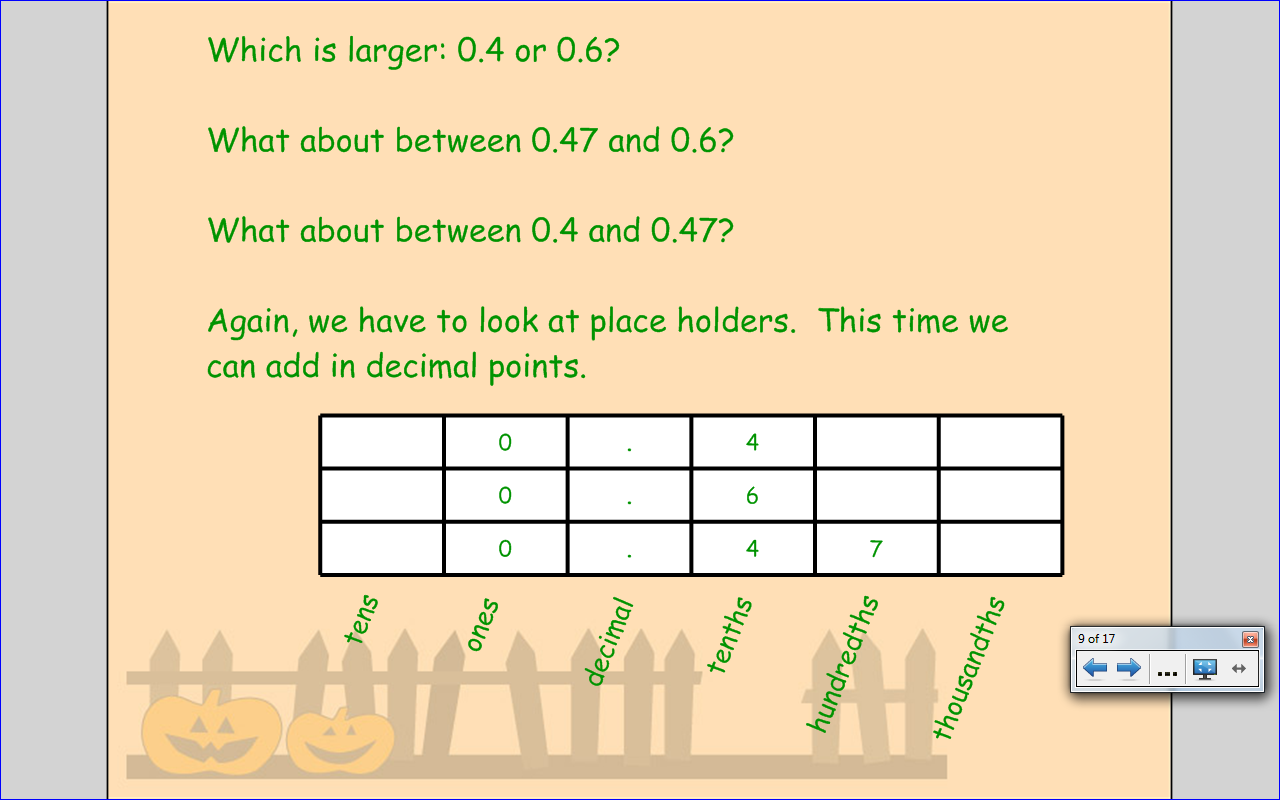


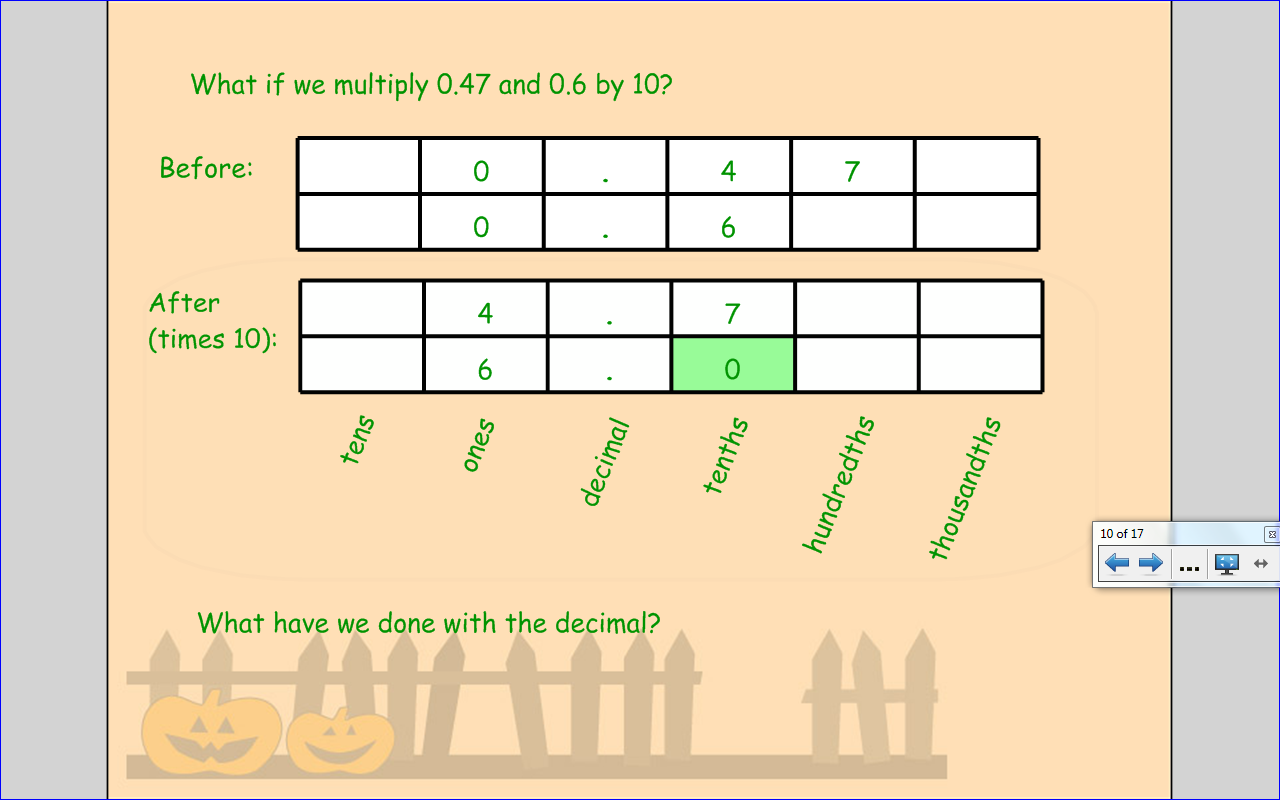


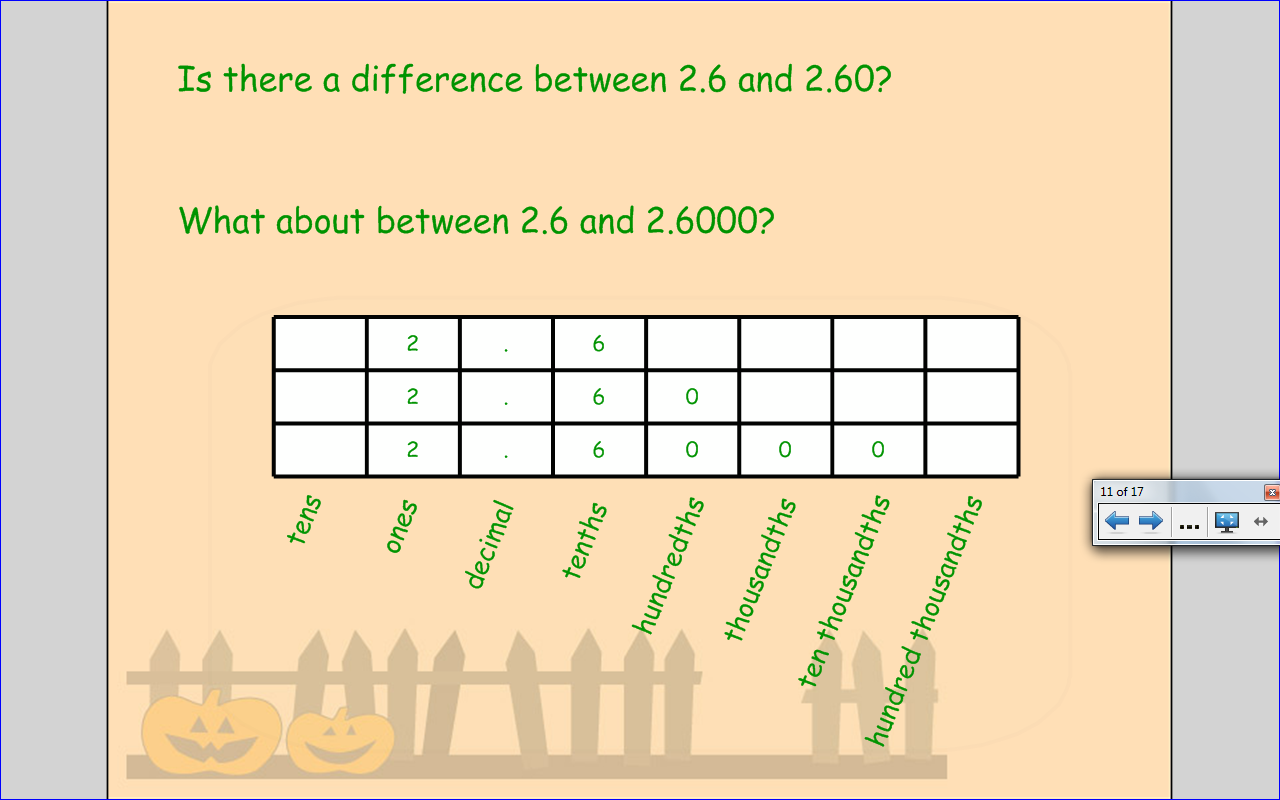


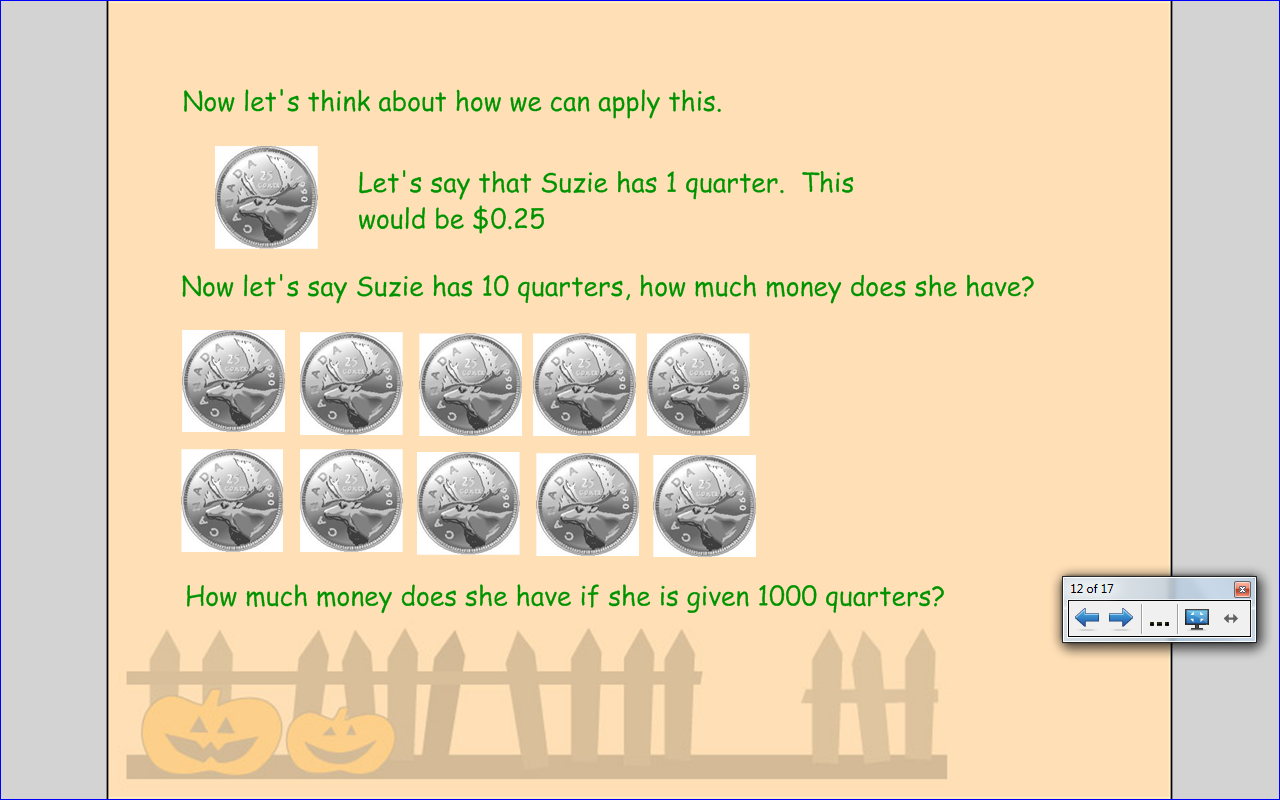
I would have them fill in the charts on their handout and answer the questions.



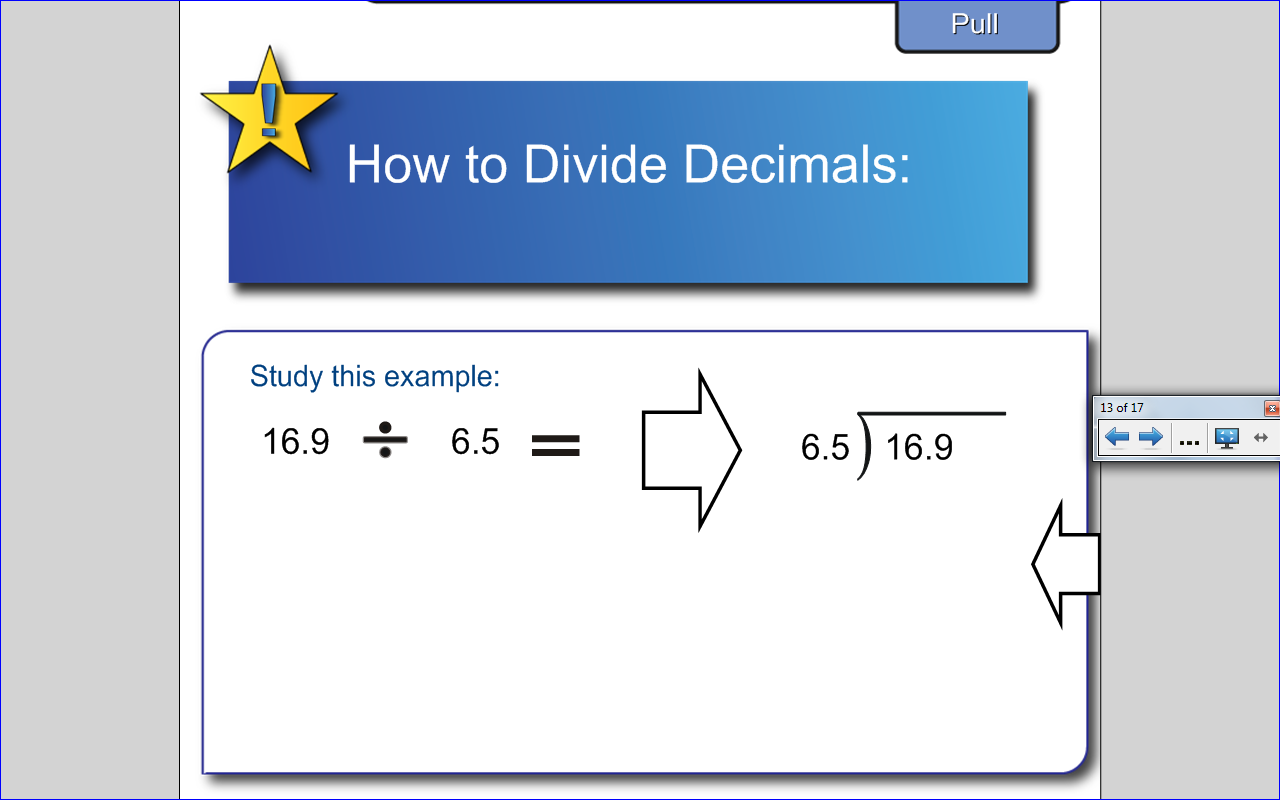


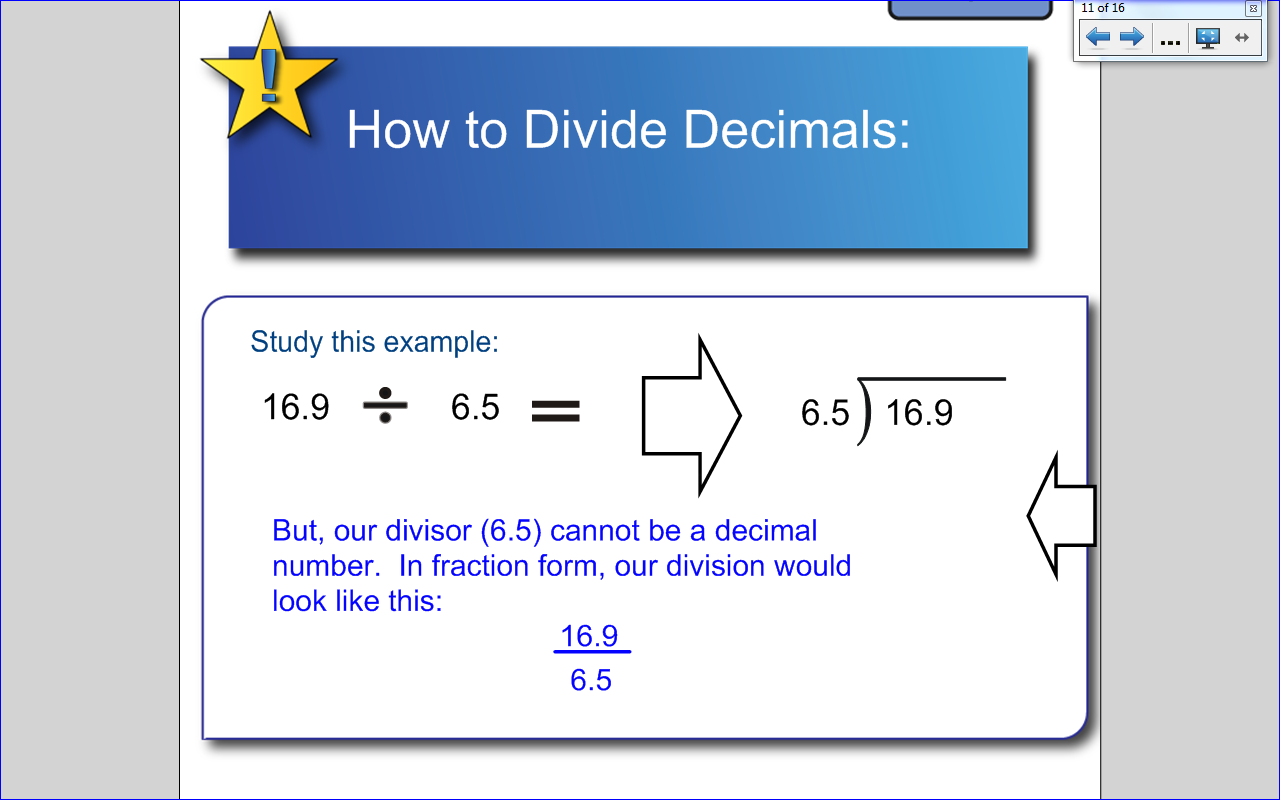


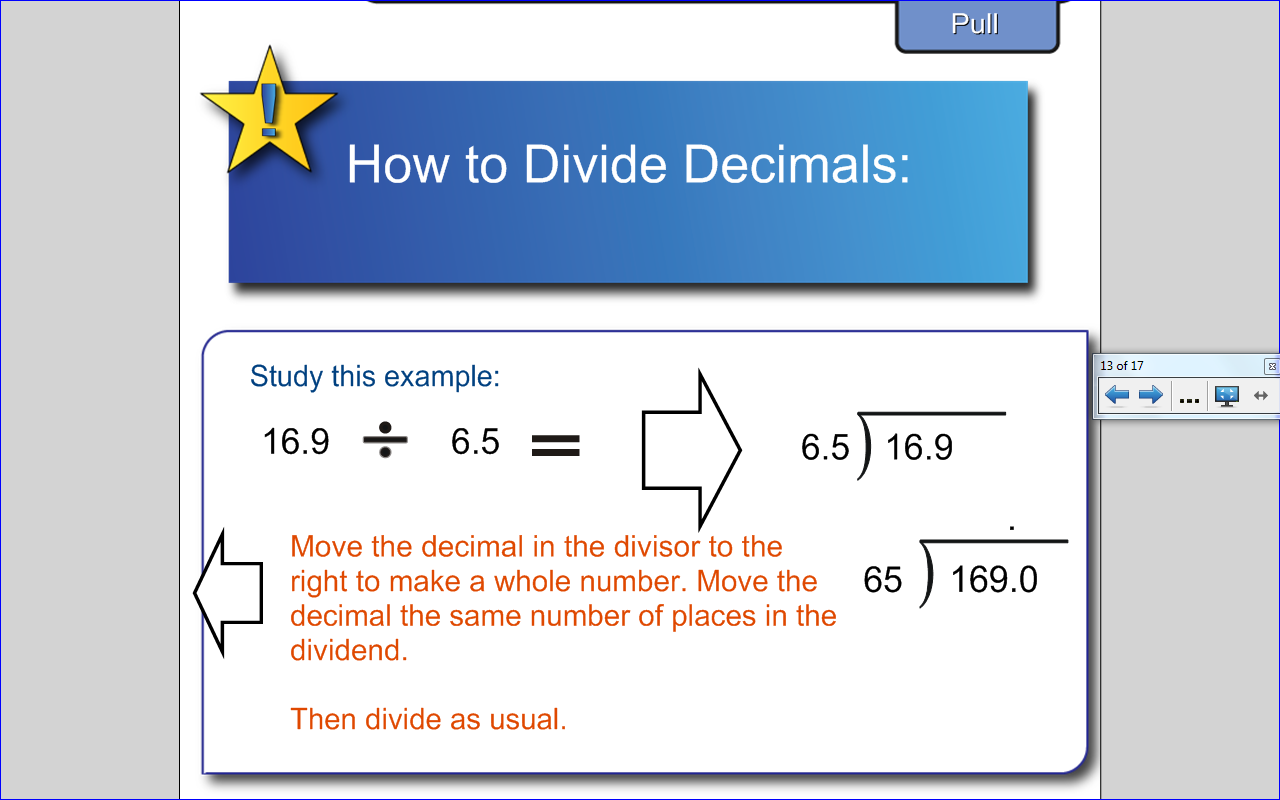


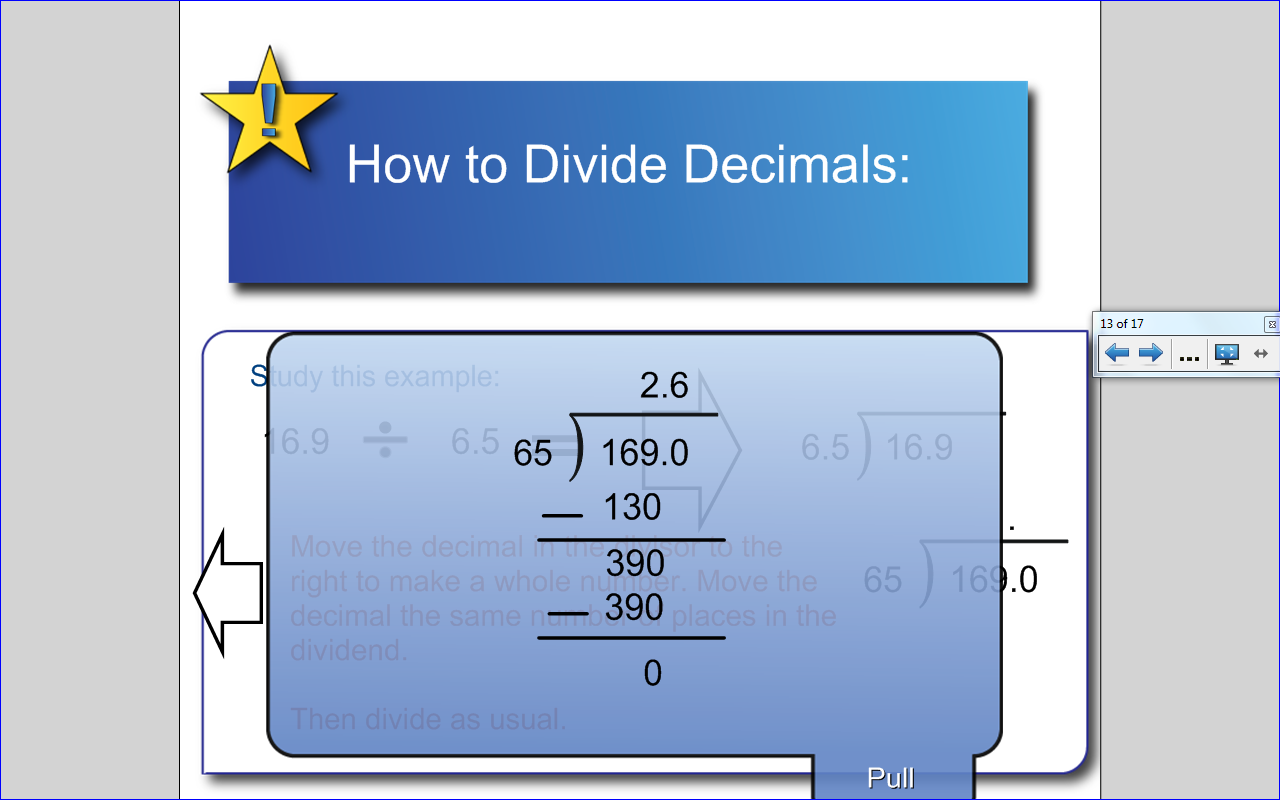


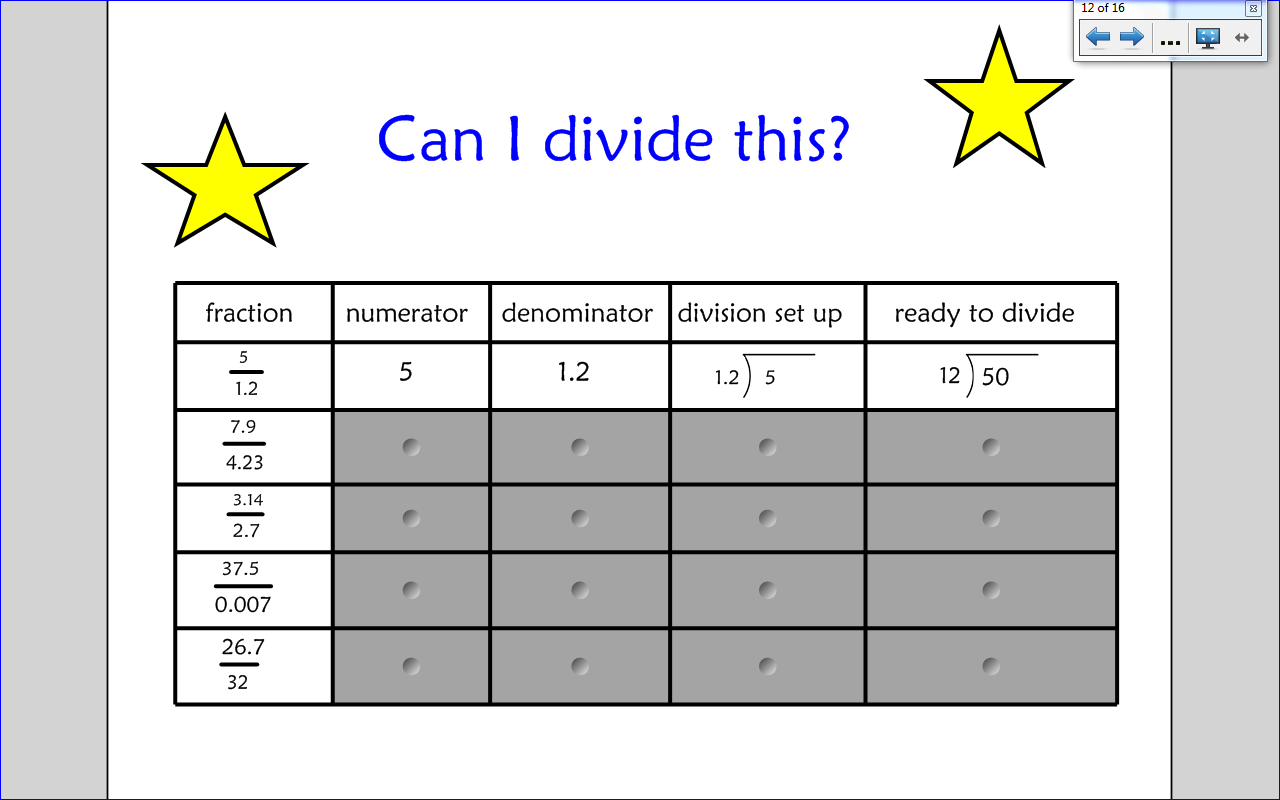
Slide 13 is shown four times to show the reveals

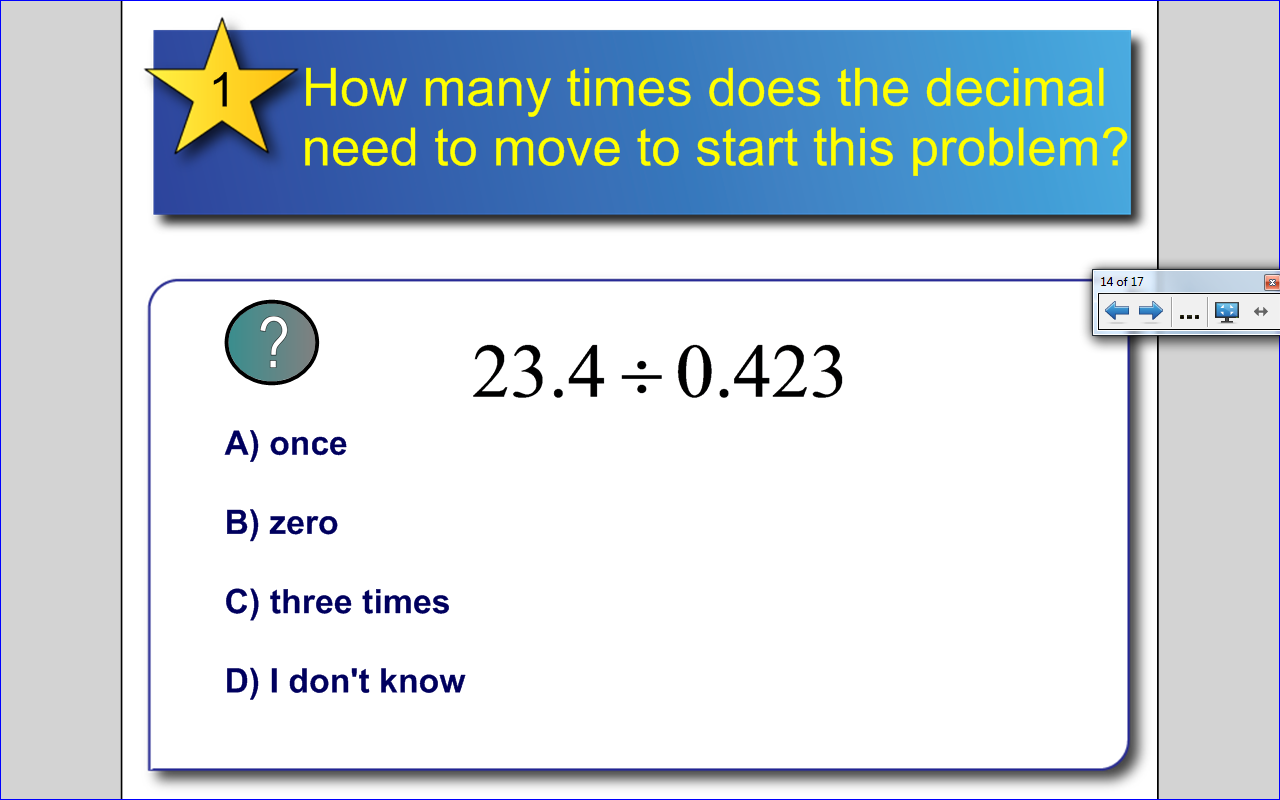


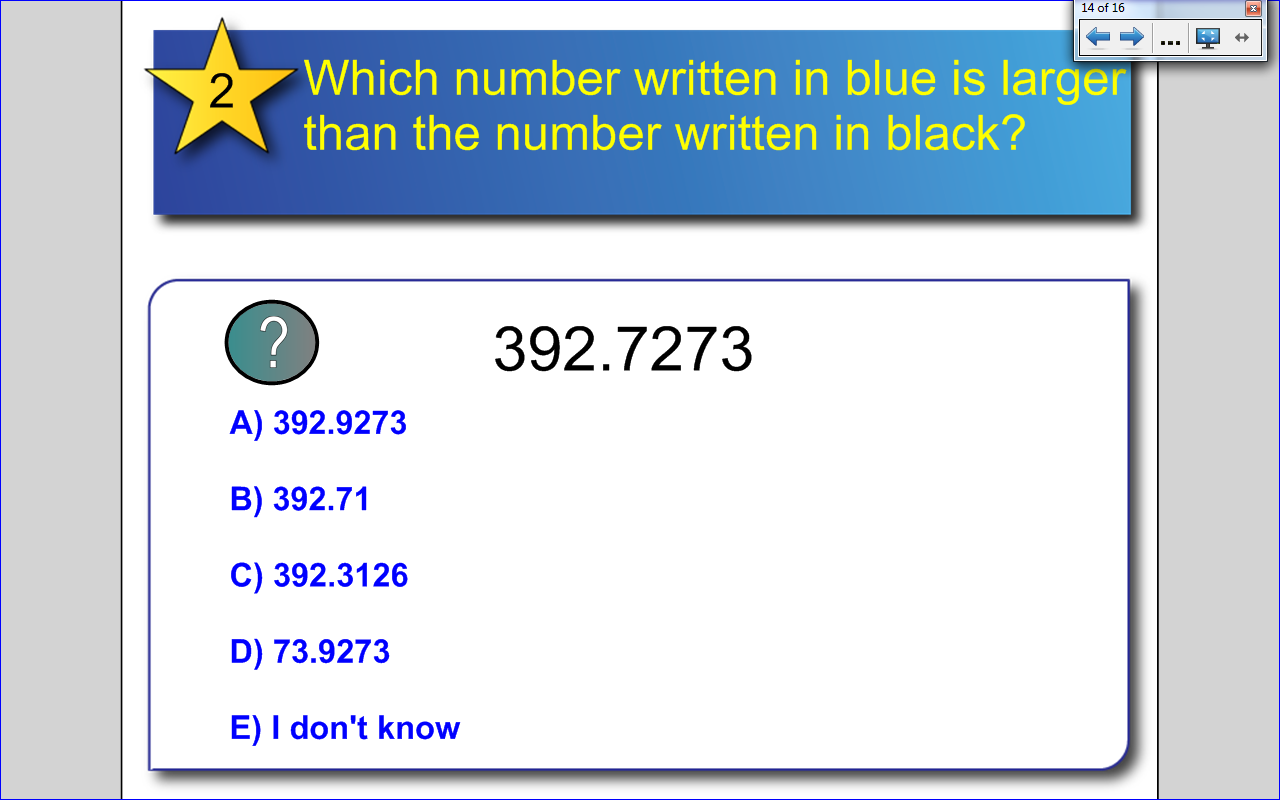


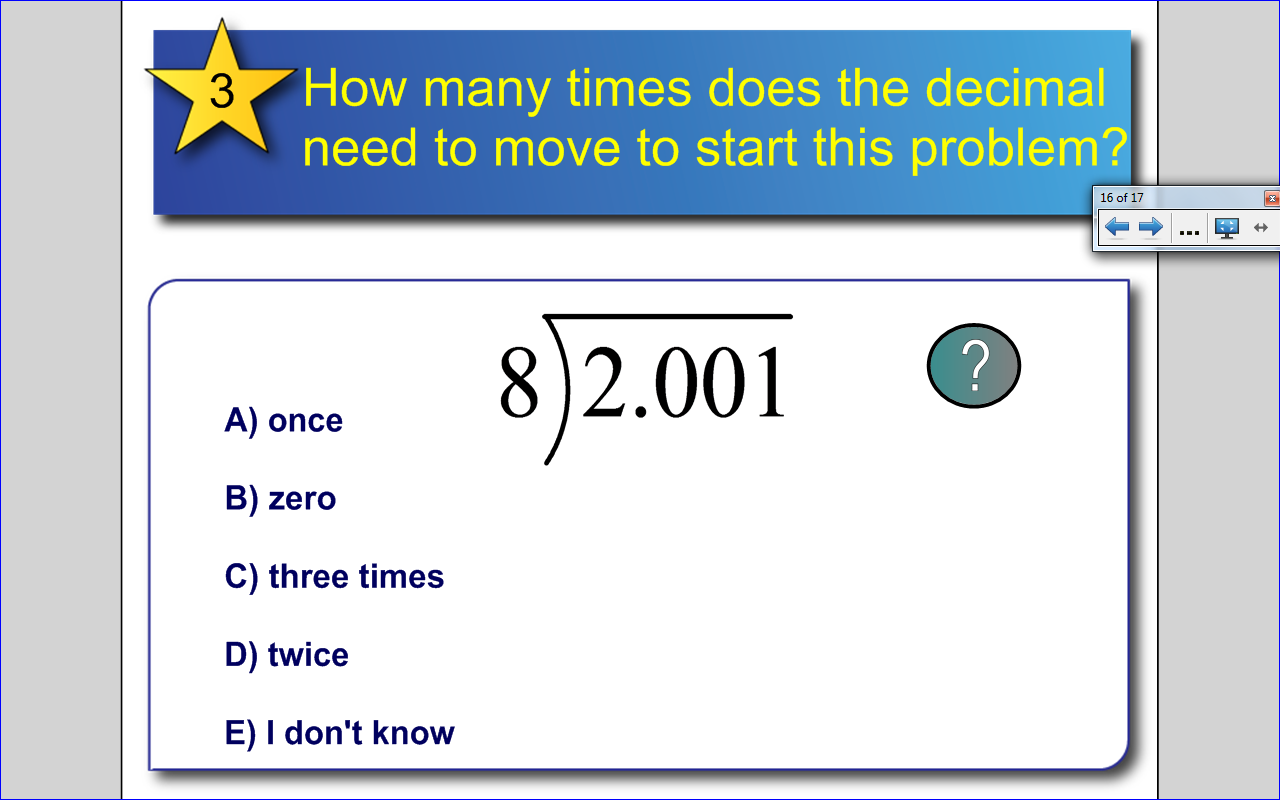


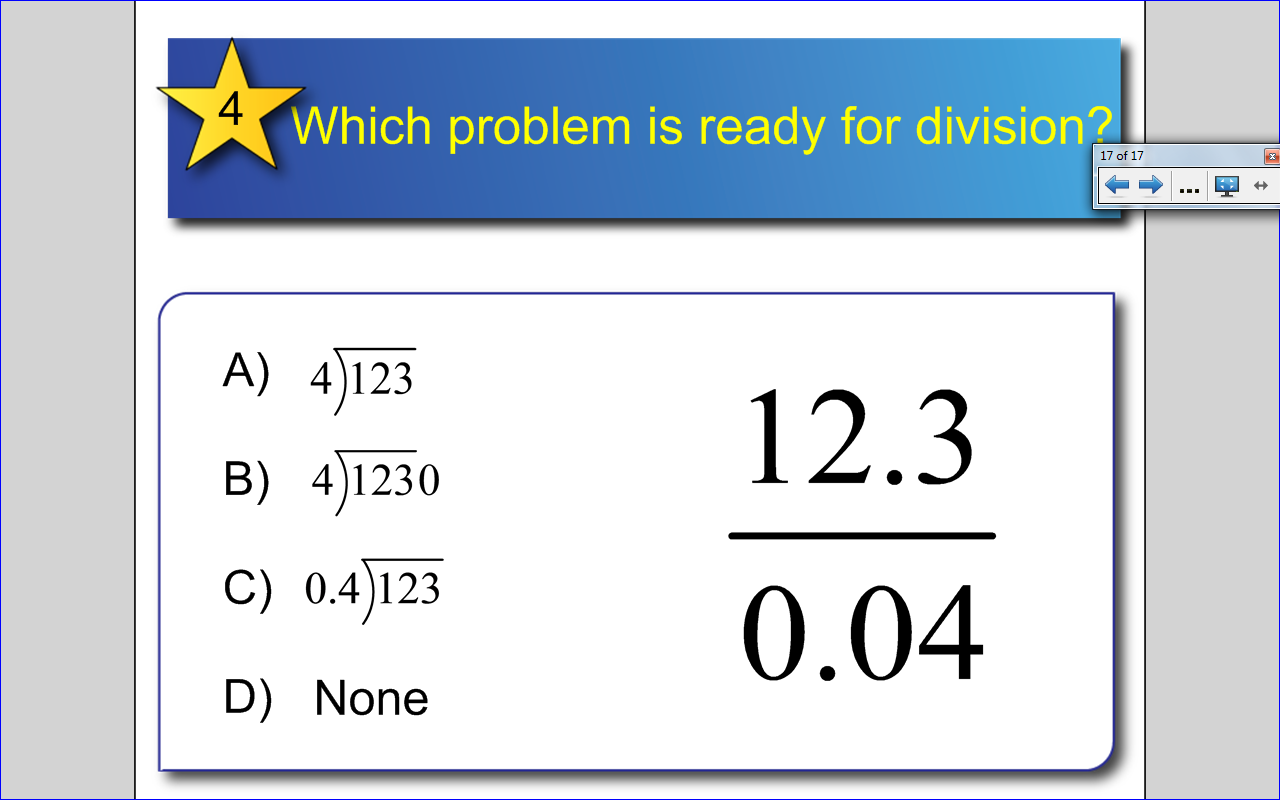




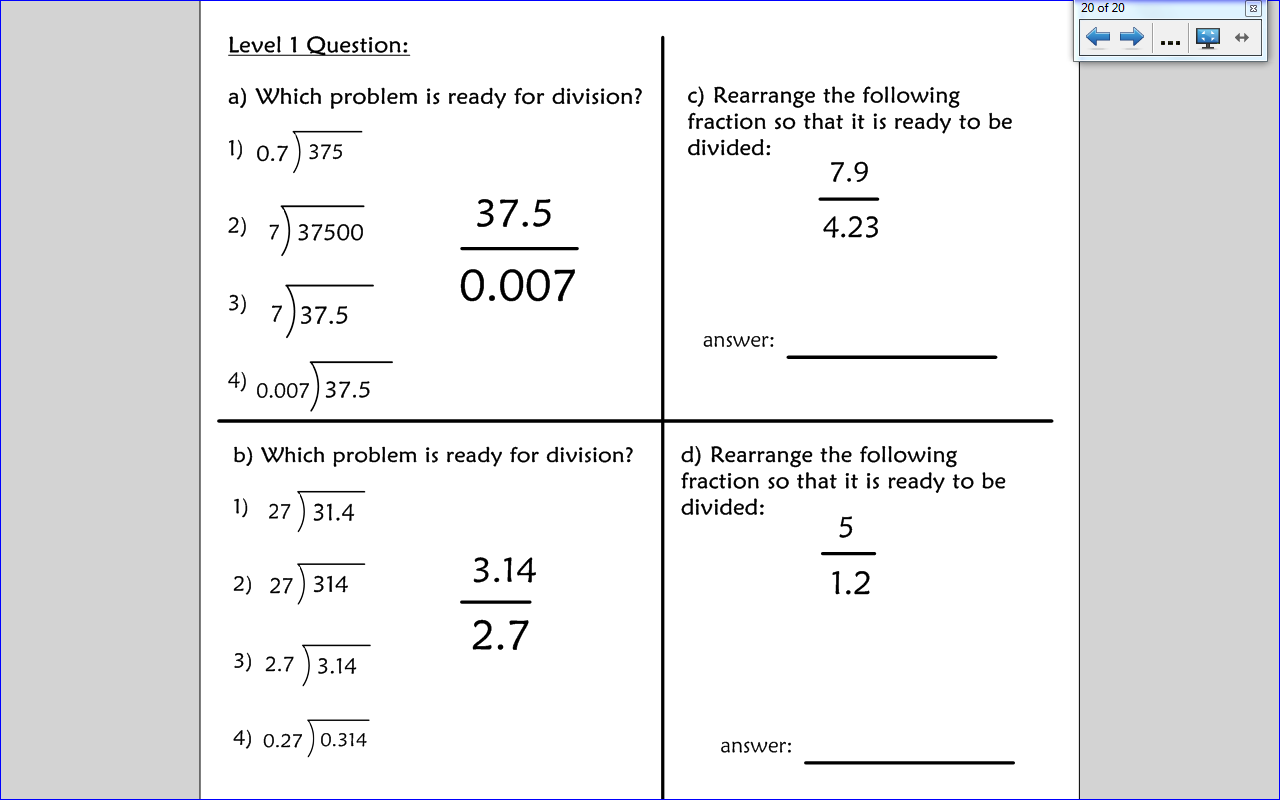








Worksheet for back page is attached below:



Using what we learned in this lesson, complete the following questions. Remember that the decimal will not always be in the right place to do your calculation.

**Level 2 Question:**

1. c)
2. d)

**Level 3 Question:**

Suppose you have 5.25 kg of jellybeans. How many 0.25 kg bags can you fill?

**Level 4 Question** – APE(**A**nswer, **P**rove, **E**xpand) up your answer:

Why can we multiply the divisor and the dividend by ten and still get the same answer for both equations? What other number could you use and get the same result? Why?

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